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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/507,157

10/13/2005

John Doyle

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EXAMINER

MAMO, ELIAS

ART UNIT

PAPER NUMBER

2184

MAIL DATE

DELIVERY MODE

06/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/507,157 | Applicant(s) DOYLE ET AL. | |
| | Examiner ELIAS MAMO | Art Unit 2184 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/20/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson et al. (US 6,963,586), herein after referred to as Henriksson et al. '586, in view of Williams et al. (US 6,515,993), herein after referred to as Williams et al. '993.

Referring to **claim 1**, Henriksson et al. '586 teaches, as claimed, an information controller for a communication system having at least one communication bus (i.e.-protocol processor for processing first head information of a reception packet, col. 4, lines 9-11) having an information unit with an identifier portion and a data portion corresponding to said identifier portion (i.e.-reception packet with header information and payload data, col. 3, lines 17-18), said information controller comprising an identifier look-up element (i.e.-field extraction unit 22 and compare unit 24, col. 9, lines 21-24) for sending a predetermined program selector to a signal handler upon determination that the identifier portion of a received information unit corresponds to a predetermined

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identifier associated with the predetermined program selector
(Note: based on the comparing unit result an instruction is selected from the first look-up table, col. 4, lines 36-44),

However, Henriksson et al. '586 does not explicitly teach where the program selector defines an operation to be performed on the data portion by the signal handler.

On the other hand, Williams et al. '993 discloses a method of outputting or selecting an operation code based upon header information where the operation code indicates methods of modifying the data frame (col. 3, lines 11-19).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the program selector of Henriksson et al. '586 so that program selector defines an operation to be performed on the data portion by the signal handler, as taught by Williams et al. '586. The motivation for doing so would have been to optimize packet processing.

As to **claim 2**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the operation to be performed on the data portion can be the creation of a second information unit; or merging the data portion, or part of the data portion, with another data portion of a second information unit; or saving the data portion, or part of the data portion (i.e.-the selected instructions are used to process the second header information, col. 4, lines 42-44).

As to **claim 3**, Henriksson et al. '586 teaches an information controller as claimed in claim 2, further comprising a frame transmitter for prioritizing multiple second information units

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for transmission in accordance with a communication protocol (i.e.-communication channels, col. 10, line 11).

As to **claim 4**, Henriksson et al. '586 teaches an information controller as claimed in claim 3, wherein the second information units include a second identifier (Note: it's intrinsic to include header information in the second data packet).

As to **claim 5**, Henriksson et al. '586 teaches an information controller as claimed in claim 3, further comprising a transmission memory for storing multiple second information units (i.e.-payload memory 16, col. 8, lines 20).

As to **claim 6**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the identifier look-up element further comprises a look-up table for storing said predetermined identifier and program selectors (col. 7, lines 32-33).

As to **claim 7**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the signal handler further comprises memory for storing said data portion and a predetermined sequence of operations (col. 8, lines 18-20).

As to **claim 8**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, wherein the identifier look-up element is programmable to allow the predetermined identifier and/or the associated program selector to be changed (col. 6, lines 38-40).

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As to **claim 9**, Henriksson et al. '586 teaches an information controller as claimed in claim 1, further comprising a central processor unit interface to allow direct communication between said information controller with a central processing unit of the communication system (col. 8, lines 49-51).

As to **claim 10**, Henriksson et al. '586 innately teaches an information controller as claimed in claim 9, wherein said central processing unit can access any memory of the information controller (col. 6, lines 1-8).

Referring to **claim 12**, Henriksson et al. '586 teaches, as claimed, a method for using an information controller for a communication system (i.e.-a method for using a protocol processor for processing first head information of a reception packet, col. 4, lines 9-11) having at least one communication bus and having an information unit with an identifier portion and a data portion corresponding to said identifier portion (i.e.-reception packet with header information and payload data, col. 3, lines 17-18), said method comprising the steps of:

- receiving the identifier portion at an identifier loop-up element (i.e.-extracted header information is received by a compare unit, col. 4, lines 29-31);

- sending a predetermined program selector to a signal handler upon determination that the identifier portion corresponds to a predetermined identifier associated with the predetermined program selector (Note: based on the comparing unit result an instruction is selected from the first look-up table, col. 4, lines 36-44);

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However, Henriksson et al. '586 does not explicitly teach step of performing an operation on the data portion based upon the program selector.

On the other hand, Williams et al. '993 discloses a method of outputting or selecting an operation code based upon header information where the operation code indicates methods of modifying the data frame (col. 3, lines 11-19).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Henriksson et al. '586 and implement the step of performing an operation on the data portion based upon the program selector, as taught by Williams et al. '586. The motivation for doing so would have been to optimize packet processing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ashgar et al. (5,784,640) disclose CPU with DSP function preprocessor having look-up table for translating instruction;
- Okuyama (US 5,946,298) discloses digital interface which inserts a transfer rate value into a packet header;
- Van de Pol et al. (US 5,983,365) disclose frame processing unit with test mode; and
- Upender et al. (US 5,854,454) disclose message routing in control area network (CAN) protocol.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIAS MAMO whose telephone number is (571) 270-1726 and fax number (571) 270-2726. The examiner can normally be reached on Monday thru Thursday from 9 AM to 5 PM EST. The examiner can also be reached on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai, can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. M./

**/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184**